

## The Determinants of Professional Fees in Large Bankruptcy Reorganization Cases

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This article reports on the the most extensive study to date of the professional fees and expenses awarded by United States Bankruptcy Courts in the reorganizations of large, public companies. Over the past three decades, scholars have made numerous attempts to estimate

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these amounts.<sup>3</sup>

They faced major barriers to data gathering. As a practical matter, the only reliable source of data on the fees in a given case is the judge's orders approving payment, and the only practical means for obtaining the data has been to travel to the court<sup>4</sup> and examine the case file.<sup>5</sup> As a result, sample sizes have been small.<sup>6</sup> Researchers typically have reported professional fees as fixed percentages of some dollar measure of firm size, ranging from a low of 1% to a high of 6%.<sup>7</sup>

During the 1990s, the bankruptcy courts began making their dockets available on the internet through PACER. Toward the end of that decade, they began posting the full text of at least some of the documents contained in the court files. It is not yet possible to acquire all of the fee applications and orders in a given set of cases through PACER, so one cannot yet

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<sup>3</sup> Karen Hopper Wruck, *Financial Distress, Reorganization, and Organizational Efficiency*, 27 J. FIN. ECON. 419, 436-39 (1990) (compiling a variety of estimates of direct and indirect costs of bankruptcy).

<sup>4</sup> James S. Ang, Jess H. Chua, & John J. McConnell, *The Administrative Costs of Corporate Bankruptcy: A Note*, 37 J. FIN. 219, 220 (1982) (examining only cases from the Western District of Oklahoma); Michelle J. White, *Bankruptcy Costs and the New Bankruptcy Code*, 38 J. FIN. 477, 483 (1983) (examining only cases from the Southern District of New York).

<sup>5</sup> Copies of court documents can be ordered directly from the courts. But the process is expensive and nightmarishly difficult. It often ends only in the discovery that the documents have been archived. Inserting a document retrieval company between the research and the court reduces the hassle, but drives the expenses above what most researchers can pay. *See generally*, Lynn M. LoPucki, *The Politics of Research Access to Federal Court Data*, 80 TEX. L. REV. 2161 (2002).

<sup>6</sup> *E.g.*, Jerold B. Warner, *Bankruptcy Costs: Some Evidence*, 32 J. FIN. 337, 340 (1977) (eleven railroad sample); Edward I. Altman, *A Further Empirical Investigation of the Bankruptcy Cost Question*, 39 J. FIN. 1067, 1073 (1984) (sample of twelve retailers and seven other industrial firms); Stephen J. Lubben, *The Direct Costs of Corporate Reorganization: An Empirical Examination of Professional Fees in Large Chapter 11 Cases*, 74 AM. BANKR. L.J. 509 (2000) (sample of twenty-two cases).

<sup>7</sup> *E.g.*, Warner, *supra* note 6, at 337 (“cost of bankruptcy” one percent of market value of the firm prior to bankruptcy); Altman, *supra* note 6, at 1076-77 (“direct bankruptcy costs” six percent of the market capitalization of the firm); Lubben, *supra* note 6, at 538 (“The Present study reports the director costs of bankruptcy at 1.82% of assets.”).

compile the documents for a random national sample.<sup>8</sup> But it is both possible and practical to acquire nearly all of the fee applications and orders in a substantial proportion of a given set of cases. That is what we did.

Earlier researchers who attempted to study large public company bankruptcies also faced two additional problems: identifying the universe of cases and gathering data on the numerous variables that might be tested. No lists of large, public company bankruptcies were published or available through the courts.<sup>9</sup> As a result, researchers interested in large reorganizations had to rely on newspaper searches or stock trading data to select a set of cases for study and then explore a variety of sources for data on those cases.<sup>10</sup> To address this problem, one of us compiles and makes available on the internet, basic data on all bankruptcy cases filed by large public companies, together with a search engine that will compile sub-universes based on a variety of criteria. Data on 618 cases filed from 1980 through April 2003 are now available.<sup>11</sup>

With these advantages, we were able to compile almost complete data on the amounts of fees and expenses applied for and awarded to professionals in 48 recently-concluded large, public company reorganizations. Based on analysis of this larger sample of more representative cases we constructed a regression model of the principal determinants of fees and expenses. The most important findings are these:

1. Four factors determined the amounts of fees and expenses. In declining order of importance, they are firm size (measured by assets reported on the petition), time elapsed from filing to plan confirmation, the number of professional firms authorized to incur fees, and whether the case proceeded in the Delaware bankruptcy court.

2. The ratio of fees to assets is subject to a scale effect. As the size of the case increases, the ratio of fees to expenses declines.

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<sup>8</sup> See LoPucki, *supra* note 5, at 2162-67 (2002) (discussing restrictions on usability for research deliberately built into the PACER system).

<sup>9</sup> Since the early 1980s, the S.E.C. has maintained a list of large public company bankruptcies that researchers can obtain by Freedom of Information Act Request. *E.g.*, Securities Exchange Commission, Public Company List: SEC Appearance Filed October 1, 1996 through September 30, 1997 (on file with Lynn M. LoPucki).

<sup>10</sup> *E.g.*, Michael Bradley & Michael Rosenzweig, *The Untenable Case for Chapter 11*, 101 YALE L.J. 1043, 1059 (1992) (using the Wall Street Journal Index to compile a list of bankrupt firms listed on the New York and American stock exchanges).

<sup>11</sup> Lynn M. LoPucki, Bankruptcy Research Database (WebBRD edition 2003), available at <http://lopucki.law.ucla.edu>.

3. For the 48 cases studied, total fees and expenses were 1.4% of the debtor's total assets as reported in the bankruptcy file at the beginning of the bankruptcy case. The average ratio of fees and expenses to total assets was 2.2%, but removal of a single outlier reduced it to 1.9%.

4. Controlling for firm size, case duration, and the number of professional firms working, fees were 32% higher in Delaware cases. But controlling only for firm size, the difference was not significant.

5. Whether the firm was solvent was not a significant determinant of the amount of fees incurred, but the ratio of assets to liabilities was weakly such a determinant.

6. Courts awarded nearly all of the fees and expenses professionals sought. Reductions in the amounts awarded from the amounts sought exceeded 4% of the amounts sought in only 11% of the cases. The mean fee and expense cut varied significantly by court. Delaware cuts averaged 0.7%, New York 4.5%, and Other Courts 2.3%. Fees and expenses were not significantly lower in cases with larger cuts.

7. Firm size and case duration were the principal determinants of the amount of fees debtors-in-possession paid their bankruptcy attorneys. Neither the number of professional firms employed in the case nor the location of the case in Delaware appeared to affect the amounts of these fees.

8. The inflation-adjusted professional fees and expenses awarded in a public company reorganization of a given size have fallen by about 57% since the 1980s. Controlling only for firm size, the difference is statistically significant. The decline in fees appears to be associated with the decline in case duration that occurred since that period.

The regression model we developed also has an important practical application. The model provides the most accurate method available for estimating the professional fees and expenses a firm will pay if it files bankruptcy and for evaluating comparatively the fees and expenses awarded in a case that has been concluded. To facilitate this use, we developed a computer program, the Bankruptcy Fee Calculator, that uses our regression formulae to predict awarded fees and expenses from the user's estimate of asset size. To refine the estimate, the user can also enter case duration, number of professional firms, and/or case location.<sup>12</sup>

Part I of this article describes our study methods. Part II describes the regression model that explains the aggregate amounts of fees and expenses awarded all professionals. Part III describes the regression model that explains the aggregate amounts of fees and expenses awarded to bankruptcy attorneys employed directly by the debtor-in-possession. Part IV compares the aggregate fees and expenses awarded in the cases we studied with the aggregate fees and expenses awarded in a set of early 1980s cases studied by Professor Lawrence Weiss.

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<sup>12</sup> We will post the Bankruptcy Fee Calculator at <http://lopucki.law.ucla.edu>.

In Part V, we report our conclusions as to the implications of our findings.

## I. The Study

This article reports on a study of professional fees and expenses awarded by United States Bankruptcy Courts in the Chapter 11 cases of 48 large, public companies whose plans were confirmed in the period from 1998 through mid-2002. The 48 cases studied are approximately 30% of the 158 cases that resulted in confirmation of a plan that reorganized or liquidated a large, public company during that period. The sample is not random; it is a sample of convenience. In general, the firms chosen were those on which we could most easily gather data. We also made an effort to include cases from courts other than Delaware and New York, even though fee information was more readily available for Delaware and New York cases.

Firms were identified from Lynn M. LoPucki's Bankruptcy Research Database (BRD).<sup>13</sup> The BRD includes data on all large,<sup>14</sup> public<sup>15</sup> companies filing bankruptcy cases in the United States during the period covered by the study.

We obtained most of our data directly from the court files, using PACER.<sup>16</sup> We collected the fee applications (minus attachments) and orders, either directly from the court file or, in a few cases, from document retrieval firms. In other cases, we were able to obtain the necessary information from the dockets, without consulting the applications and orders.<sup>17</sup> The total number of applications discovered and analyzed was 522.

Bankruptcy Code § 330(a)(1) authorizes the court to “award to a . . . professional person

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<sup>13</sup> Three cases not currently included in the BRD were included in this study because they were included in the BRD at the time we selected our sample. The three cases were Unison Healthcare, Greate Bay Hotel, and Stratosphere Corp. In each of those cases, the debtor's petition reported assets in an amount sufficient to qualify for inclusion in the BRD, but the debtor's Form 10-K reported a lesser amount. BRD protocols were revised to consider only assets as reported on Form 10-K.

<sup>14</sup> For purposes of inclusion in the BRD, a company is considered large if it reported assets in excess of \$100 million, measured in 1980 dollars, on the last Form 10-K it filed with the SEC for a period ended prior to bankruptcy. That amount is approximately \$218 million in 2002 dollars.

<sup>15</sup> Firms are considered “public” if they filed a form 10-K with the SEC for a fiscal year ended not more than three years prior to the filing of the bankruptcy petition.

<sup>16</sup> PACER is an acronym for Public Access to Court Electronic Records. The system is available at <http://pacer.psc.uscourts.gov>.

<sup>17</sup> The courts involved did not post the applications and orders on PACER, but did include in the docket entries the amounts of fees and expenses applied for and awarded.

[whose employment was previous authorized by the court] reasonable compensation for actual, necessary services rendered . . . and . . . reimbursement for actual, necessary expenses.” Bankruptcy Rule 2016 requires that:

An entity seeking interim or final compensation for services, or reimbursement of necessary expenses from the estate shall file an application setting forth a detailed statement of (1) the services rendered, time expended and expenses incurred, and (2) the amounts requested. An application for compensation shall include a statement as to what payments have therefore been made or promised to the applicant for services rendered or to be rendered in any capacity whatsoever in connection with the case . . . .<sup>18</sup>

The law allows estates to pay only compensation approved by the court on such an application.<sup>19</sup> Thus the court files should contain complete information on the amounts of compensation applied for and paid from the debtor’s estate for “professional” fees and expenses “in connection with the [bankruptcy] case.”<sup>20</sup>

Commentators have generally considered these fees and expenses to be the “direct costs of bankruptcy.”<sup>21</sup> But several problems with this equation are worthy of note. First, this measure includes only professional fees and expenses advanced by the professionals. Debtors may incur and pay other kinds of expenses directly resulting from the bankruptcy filing that might not make their way onto these applications. For example, the debtor might pay directly the court’s filing fees or the travel expenses of the firm’s executives to attend court.

Second, professionals who work on behalf of secured creditors may be entitled to recover their fees and expenses as part of their clients’ secured claims.<sup>22</sup> Technically, these amounts are not paid from the debtor’s estate. They are paid from the secured creditors’ collateral. However, their payment directly reduces the value of the estate, so the effect is exactly the same as if they were paid from the estate. Nevertheless, these amounts are not included in Rule 2016 applications, have not traditionally been included in studies of professional fees, and are not

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<sup>18</sup> 11 U.S.C. § 2016.

<sup>19</sup> *E.g.*, 1 ROBERT E. GINSBERG & ROBERT D. MARTIN, BANKRUPTCY § 4.05[A][1] (4<sup>th</sup> ed. 2003) (“A professional for the trustee who wants to be compensated form the estate must go to the bankruptcy court for that compensation.”).

<sup>20</sup> Text accompanying note 18.

<sup>21</sup> Some researchers have treated them as the equivalent of “expenses of administration.” They are not. Expenses of administration is a broader category that includes professional fees along with other expenses of operation or liquidation. 11 U.S.C. § 503(b).

<sup>22</sup> 11 U.S.C. § 506(b).

included in this study.<sup>23</sup>

Third, both the phrases “professional fees”<sup>24</sup> and “in connection with the [bankruptcy] case”<sup>25</sup> are ambiguous and may be interpreted differently in different local legal cultures.<sup>26</sup> As an example of the first ambiguity, a real estate broker who sells property of the estate may or may not be considered a professional who must file a fee application. As an example of the second, fees incurred prepetition for the negotiation, preparation, and approval by creditors of a prepackaged plan of reorganization may or may not be considered to have been incurred “in connection with the case.”<sup>27</sup>

Fourth, courts generally require that professionals file “final” fee applications shortly after confirmation of the reorganization plan. Those applications cover the period through confirmation, but may also include some post-confirmation fees.<sup>28</sup> As a result, some post

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<sup>23</sup> The records of the bankruptcy courts probably provide insufficient information for their inclusion on any systematic basis.

<sup>24</sup> 11 U.S.C. § 327(a) (“[T]he trustee, with the court’s approval, may employ one or more attorneys, accountants, appraisers, auctioneers, or other professional persons . . .”).

<sup>25</sup> *Supra*, text accompanying note 18.

<sup>26</sup> Although the Bankruptcy Code and Rules apply in all districts, large differences exist in practices and outcomes. The causes of these differences are lumped together in the concept of “local legal culture.” Teresa A. Sullivan, Elizabeth Warren, and Jay Lawrence Westbrook, *The Persistence of Local Legal Culture: Twenty Years of Experience from the Federal Bankruptcy Courts*, 17 HARV. J. LAW & PUBLIC POL. 801 (1994)

<sup>27</sup> 11 U.S.C. § 2016. Our study included only three prepackaged cases: Farm Fresh (Delaware), Cityscape Financial (White Plains) and Grand Union 1998 (Newark). The debtor must have incurred professional fees and expenses in all three to propose and obtain acceptance of a plan of reorganization prior to the filing of the bankruptcy case. Consistent with this supposition, the DIP’s financial advisor in Farm Fresh sought compensation and reimbursement for a period commencing more than a year prior to the bankruptcy filing. Inconsistent with this supposition, the principal fee applications in the other two prepackaged cases covered only periods commencing approximately at the filing of the petition. The professional firms that assisted Cityscape Financial, Grand Union, and their creditors in negotiating and winning acceptance of the plan must have concluded that their prepetition work was not “in connection with the bankruptcy case.”

<sup>28</sup> Each fee application specified the dates covered. We collected these dates and included them in the data available at <http://www1.law.ucla.edu/~erg/pubs.html>. In a few cases, the dates ended prior to entry of the confirmation order (but presumably after the confirmation hearing). In most the dates ended on the date of entry of the confirmation order or within two or three weeks thereafter. Rarely did the dates end more than four months after confirmation.

confirmation fees are included in our data, and the extent to which that occurred differed a little from case to case. We collected our data once the final applications and orders were in the court file. In some cases, some of the professionals continued to incur fees in connection with the case. We did not include the later fees in our study.<sup>29</sup>

Fifth, professional fee and expense awards include only the professional fees and expenses the debtor's estate will pay. These amounts frequently include fees incurred for the representation of creditors' committees, equity committees, indenture trustees, and others. But professional fees and expenses awarded do not include professional fees and expenses paid by parties other than the debtor in possession without reimbursement from the estate. That results in the omission from a study such as ours of fees paid in connection with the bankruptcy case by individual creditors, lessors to the debtor, lessees from the debtor, parties to executory contracts with the debtor, suppliers, utilities, and others who are not eligible for reimbursement. These five factors each tend to cause our calculation of professional fees and costs to understate the "direct costs of bankruptcy."<sup>30</sup>

One other factor causes a tendency in the opposite direction. As with all studies of the direct costs of bankruptcy,<sup>31</sup> some portion of the fees applied for and awarded by the court in our cases would have been incurred even in the absence of a bankruptcy case. One example is the fees of "special counsel" retained by the estate to litigate disputes that would have been litigated in the absence of bankruptcy. Another example is the fees of financial advisors in connection with sales of assets that would have been sold even in the absence of bankruptcy.

Because of these difficulties in measurement, the amounts of professional fees and expenses reported in this, and other similar studies, should not be considered equivalent to the "direct costs" a firm must pay for the advantages of bankruptcy. The latter could be either higher or lower than the former. With the exception of prepackaged cases, however, the fee award process appeared sufficiently uniform to support inter-case comparisons. We focus on those comparisons.

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<sup>29</sup> To include all fees awarded by the court in connection with the case might have required that we continue to follow the cases for several years before reporting. The amounts of additional fees incurred probably would have been small in comparison with the fees incurred through confirmation.

<sup>30</sup> Lubben raises a sixth possibility: fees that are incurred and paid by the estate without the required application and authorization. Lubben, *supra* note 6, at 538. The cases we studied were much larger than those Lubben studied. We doubt that the debtors in our sample – each with assets in excess of \$200 million – paid significant amounts without authorization.

<sup>31</sup> Lubben, *supra* note 6, at 519 ("In short, all studies of the direct costs of Chapter 11, including the present one, by design overstate the costs of Chapter 11 through inclusion of professional fees that would be incurred regardless of the Chapter 11 filing.").

## II. The Professional Fees and Expenses Regression Model

Because we selected our sample of cases from the BRD, we had ready access to data on a variety of firm and case characteristics. These data enabled us to test a larger number of relationships than earlier researchers. The variables we tested for our model included the size of the firm (using eight different standards of measurement), the length of the case, the court, the number of professional firms working, whether the firm was solvent, the type of plan (prepackaged, prenegotiated or neither), the firm's industry, the amounts of fee cuts, whether the firm survived bankruptcy, whether the debtor's lawyers were from New York, whether the firm reorganized or liquidated, and whether the debtor's lawyers were local to the court.

We selected variables for inclusion in the model based upon three criteria. First, the bivariate relationship between each variable and professional fees and expenses had to be significant, as determined using Pearson's R correlation. Second, the variables had not to be confounded with each other. In those cases where variables were confounded, we selected for our model the one with the strongest correlation to fees.<sup>32</sup> Third, the addition of the variable to the equation had to significantly improve the R-squared, or fit, of the model. From this procedure we settled on four variables: assets reported on the petition, case duration, the number of professional firms seeking fees, and location (whether the case was in Delaware).

### A. The Basic Model

We used ordinary least squares regression (OLS) to estimate the parameters of the model.

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<sup>32</sup> We made one minor exception by choosing petition value of assets over the average of petition value of assets and petition amount of liabilities as the measure of firm size. The latter value had a very slightly stronger correlation to fees, but we chose the former because it will be easier for users of the model to obtain. *See infra*, Part II.A.1.

<p align="center"><b>Table 1.</b>  <b>Correlates of professional fees and expenses</b>  <b>awarded in Chapter 11 bankruptcy cases, 1998 - 2002.</b>  Dependent variable = natural log of total fees and expenditures  (OLS coefficients, standard errors in italics)</p>		
	<b>I</b>	<b>II</b>
<b>Assets</b> <i>natural log, mean= 6.17, sd=1.06</i>	.414** <i>.074</i>	.367** <i>.075</i>
<b>Days in bankruptcy</b> <i>natural log, mean=5.67, sd=.84</i>	.535** <i>.104</i>	.565** <i>.101</i>
<b>Number of firms</b> <i>mean=10.85, sd=5.17</i>	.063** <i>.017</i>	.065** <i>.017</i>
<b>Delaware</b> <i>mean=.40</i>		.321* <i>.152</i>
<b>Constant</b>	9.486** <i>.615</i>	9.458** <i>.590</i>
<b>Adjusted R2</b>	.77	.78
<b>N</b>	48	48
* p < .05, ** p < .01		

The model indicates that the size of the firm and the length of time a case remains pending are the strongest determinants of professional fees awarded. The third variable--the number of professional firms authorized to work in the case--is also significant but had less absolute influence on fees and expenses.<sup>33</sup> A model that considers only these three factors explains 77% of the variance of fees.<sup>34</sup> Controlling for those three factors, fees were significantly higher if the case was filed in Delaware, so we added court location to the model.<sup>35</sup>

Since the dependent variable is a natural logarithm we can interpret these regression coefficients as elasticities, that is, as the percentage change in the awarded fees and expenses

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<sup>33</sup>The standardized coefficients (betas) for firm size and days in bankruptcy are nearly identical: .419 and .430. The beta for the number of firms is .311, which suggests that the relative importance of that variable is less than the other two.

<sup>34</sup> To prevent the cases with the highest absolute values from dominating the model, we used the logarithm of the values for fees awarded, number of firm and days in bankruptcy. This decision was validated using the Kolmogorov-Smirnov test for normal distribution.

<sup>35</sup> p = .04

given a one unit change in the independent variable, all else held constant. For example, the regression model indicates that fees and expenses are, on average, 32% higher in Delaware than in other courts, when we hold constant assets, number of firms, and days in bankruptcy. Similarly, fees and expenses increase by 6.5% with each additional professional firm, holding the other factors constant.

The coefficients for assets and days in bankruptcy have a slightly different interpretation, as both the dependent and the independent variables are logarithms. The coefficients are interpreted as the percentage change in the dependent variable when the independent variable changes by 1%. For example, a 1% change in assets results in a 0.367% change in fees; and a 1% change in the number of days results in a 0.565% change in fees, when all else is held constant. These are known as log-log regressions, and they reveal an interesting fact about the relationship of fees, assets and days in bankruptcy. As assets and days increase, so do fees, but at a declining rate. The implications of these findings will be discussed in more detail in the sections that follow.

### 1. Firm Size

In examining professional fees, researchers have measured the size of the firm in a variety of ways. They have used (1) the book value of assets, measured at the fiscal year-end prior to the bankruptcy filing,<sup>36</sup> (2) the value of assets reported by the debtor on the bankruptcy petition,<sup>37</sup> (3) the book value of debt plus the market value of equity,<sup>38</sup> (4) the market value of public debt plus the book value of other debt plus the market value of equity,<sup>39</sup> (5) the market

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<sup>36</sup> Lawrence A. Weiss, *Bankruptcy Resolution: Direct costs and violation of priority claims*, 27 J. FIN. ECON. 285, 289 (1990) (using “book value of total assets . . . measured at the fiscal year end prior to the bankruptcy filing” as one of three measures for reporting); Elizabeth Tashjian, Ronald C. Lease, John J. McConnell, *Prepacks: An empirical analysis of prepackaged bankruptcies*, 40 J. FIN. ECON. 135, 144, 156 (1996).

<sup>37</sup> Lubben, *supra* note 6, at 521-23 (suggesting that Lubben used assets as reported to the bankruptcy court at the time of the bankruptcy case as the measure of firm size).

<sup>38</sup> Weiss, *supra* note 36, at 289 (“book value of debt plus the market value of equity”). Weiss does not report the source of the values he used. In our attempt to replicate it, we used the amount reported on the debtors’ schedules as the measure of debt, Compustat data item 130 (Preferred – Liquidating Value) as the value of preferred stock, and the CRSP common share price multiplied by the CRSP shares outstanding as the value of the common stock. We know of no practical source for the trading values of preferred stock or the market values of common stock issues other than the one reported for each firm in CRSP.

<sup>39</sup> Altman, *supra* note 6, at 1076 (“The total value of the firm was measured by adding the market value of equity (preferred and common) to the market value of debt (where available) plus the book value of other debt plus the capitalized value of financial leases.”).

value of debt plus the market value of equity,<sup>40</sup> (6) the market value of equity,<sup>41</sup> (7) the amount of debt as reported on the bankruptcy petition,<sup>42</sup> (8) the sum (or average) of the value of assets and debts reported on the petition,<sup>43</sup> and (9) the liquidated value of the firm at the end of the bankruptcy process.<sup>44</sup> One might also measure firm size by (10) the dollar amount of revenues or (11) the number of employees.

The use of so many different measures of size caused two problems in the literature. First, the results of studies are not comparable, so they can neither be compiled into meta-studies, nor used to compare changes over time or among types of firms. Second, the wide range of percentages resulting from the use of different measures confuses readers who are looking for simple benchmarks. To illustrate this second problem, the 48 firms studied reported total book value of assets at their last fiscal year end prior to bankruptcy that were 38% higher than the total asset values they reported on their petitions. Even though the two measures of firm size perform about equally well in a regression, fees reported using the book value of assets will be about 28% lower than those reported using the petition value of assets.

Building on Lubben,<sup>45</sup> we have attempted to determine what measures are best among the eleven suggested and recommend their use to subsequent researchers. We applied three criteria: plausibility of the measure, the closeness of the fit achieved in our model with each measure, and the availability of the data necessary to employ the measure.

We rejected (4), the market value of public debt plus the book value of other debt plus the market value of equity, because of the difficulty of obtaining the necessary data. Historical bond trading prices are difficult to obtain for firms near bankruptcy and we could not determine from the Compustat data manual what data fields should be added to traded debt to reflect “other debt.” We rejected (5), the market value of debt plus the market value of equity, as implausible, because it fails to account for bank and trade debt, and so would grossly underestimate the size of some firms. We rejected (9), the liquidated value of the firm at the end of the bankruptcy process, because it can be used only with the minority of cases that result in liquidation. We

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<sup>40</sup> Warner, *supra* note 6, at 337 (reporting the “cost of bankruptcy” as “about one percent of the market value of the firm prior to bankruptcy”).

<sup>41</sup> Weiss, *supra* note 36, at 289 (“the market value of equity”).

<sup>42</sup> Lubben, *supra* note 6, at 521-23 (use of petition values); *id.* at 532-34 (adding assets to liabilities to get “total firm size”).

<sup>43</sup> *Id.*

<sup>44</sup> James S. Ang, Jess H. Chua, & John J. McConnell, *The Administrative Costs of Corporate Bankruptcy: A Note*, 37 J. FIN. 219, 221-22 (1982) (reporting results).

<sup>45</sup> Lubben, *supra* note 6, at 532-34 (arguing for the use of (7), the sum of the value of assets and liabilities reported on the petition).

tested each of the eight remaining measures by using them, one at a time, as the measure of size in our professional fees regression model. Three measures, (6), the market value of equity, (10) the dollar amount of revenues, and (11) the number of employees yielded a significantly worse fit than the others. The remaining five measures, (1), (2), (3), (7), and (8) performed about equally well.

Of the five, we think that (2), the value of assets reported by the debtor on the bankruptcy petition, is the best measure and have employed it in our regressions. For the large majority of debtors, that value is readily available on Exhibit A of the bankruptcy petition on PACER. By contrast, (1), the book value of assets, measured at the fiscal year-end prior to the bankruptcy filing, is available only for public companies and (3), the book value of debt plus the market value of equity, requires stock data which was not available on compustat for 18 of the 48 cases in this study (38%).

## 2. Scale Effect

Professional fees increase with the size of the reorganizing firm. This increase is generally assumed to be subject to economies of scale. That is, professional fees are assumed to be a larger percentage of assets for small reorganizing firms than for large reorganizing firms. Betker concluded that fees increased with the log of assets.<sup>46</sup>

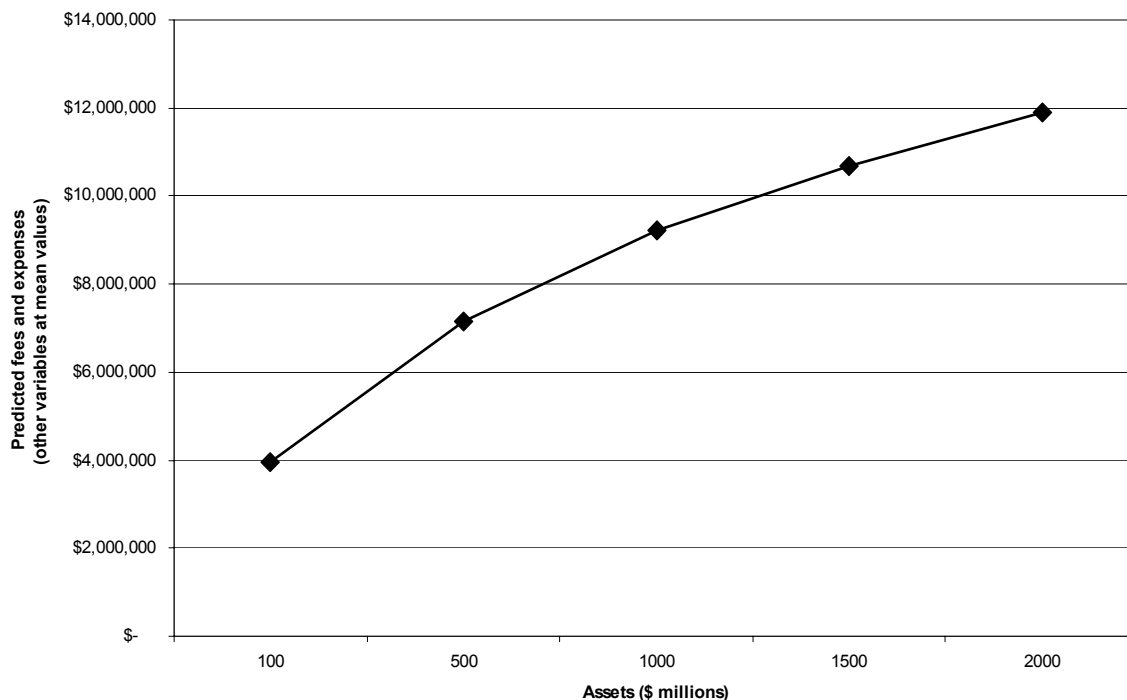
To date, the search for this scale effect has been inconclusive. Warner found obvious

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<sup>46</sup> Brian L. Betker, *The Administrative Costs of Debt Restructurings: Some Recent Evidence*, 26 FINANCIAL MANAGEMENT 56, 59 (1997) (“[F]or this sample of firms, direct costs increase with total assets but decline with the square of total assets.”).

economies of scale in a study of eleven railroad reorganizations.<sup>47</sup> Gilson found that direct costs exhibited economies of scale in a sample of out-of-court workouts.<sup>48</sup> Betker found economies of scale in a sample of out-of-court workouts and Chapter 11 cases.<sup>49</sup> Lawless found weak

**Figure 1. The scale effect of assets on fees and expenses**



economies of scale for professional fees in a study of small business bankruptcies.<sup>50</sup> But Weiss did not mention economies of scale in reporting a study of professional fees in large

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<sup>47</sup> Warner, *supra* note 6, at 344 (graph showing obvious economies of scale).

<sup>48</sup> Stuart C. Gilson, *Troubled debt restructurings: An empirical study of private reorganization of firms in default*, 27 J. FIN. ECON. 315, 338 (1990) (“Direct costs of exchange offers in our sample also exhibit economies of scale.”).

<sup>49</sup> Brian L. Betker, *The Administrative Costs of Debt Restructurings: within Some Recent Evidence*, 26 FINANCIAL MANAGEMENT 56, 59 (1997) (“[F]or this sample of firms, direct costs increase with total assets but decline with the square of total assets.”).

<sup>50</sup> Robert M. Lawless, et al., *A Glimpse at Professional Fees and Other Direct Costs in Small Firm Bankruptcies*, 1994 U. ILL. L. REV. 847, 877-78 (“[W]e found some evidence of a scale effect to professional fees in small business bankruptcies.”).

Chapter 11 cases.<sup>51</sup> After tests using several measures of size, Ferris and Lawless found economies of scale only for attorney's fees standardized by nonsecured distributions in a sample of small Chapter 11 cases.<sup>52</sup> And Lubben found evidence of *diseconomies* of scale in a sample of Chapter 11 cases.<sup>53</sup>

We found economies of scale within our sample. As noted above in the discussion of Table 1, the regression coefficient for assets is positive but less than one, indicating that fees increase with assets at a declining rate. This relationship is illustrated in Figure 1, the values of which are derived from the regression equation with other variables constrained to their mean values. We expect a \$1 billion firm to pay fees that are 29% higher than those paid by a \$500 million firm, and a \$1.5 billion firm to pay fees that are 16% higher than a \$1 billion firm, all else held constant.

Despite the conflicting results in prior studies, we think there can be little doubt that a scale effect exists. The studies to date have been small and the samples homogenous with respect to firm size. The scale effect becomes apparent on comparison across studies (Table 2).

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<sup>51</sup> Weiss, *supra* note 36 (not mentioning economies of scale). We corrected some of Weiss' data and tested it for a scale effect. *See infra*, note 82. We found a scale effect using a log-log regression. The coefficient is .866 (se = .066), which is significantly different from 1.00 ( $p < .05$ ), but the difference is substantively very small.

<sup>52</sup> Stephen P. Ferris & Robert M. Lawless, *The Expenses of Financial Distress: The Direct Costs of Chapter 11*, 61 U. PITT. L. REV. 629, 656 (2000).

<sup>53</sup> Lubben, *supra* note 6, at 534-37; *id.* at 535 ("The data is suggestive, however, of a possible trend in the opposite direction of economies of scale. Namely, larger assets may result in higher professional fees.").

<b>Table 2. Cross-study Comparison: Professional Fees in Chapter 11 Cases</b>				
<b>Study (years of cases)</b>	<b>Average firm size</b>	<b>Fees and expenses as a percent of firm size</b>	<b>n</b>	<b>Did study find a scale effect?</b>
Lawless, et al. (1991-92)	\$695,758	21.6% / 8.7%	57	no
Ferris & Lawless (1986-93)	\$4,272,141	17.6% / 16.5%	118	no
Lubben (1994)	\$139,000,000	1.8%	22	no
Altman (1970-78)	\$302,285,480	2.0%	18	no
Weiss (1979-86)	\$561,534,000	2.4%	31	no
LoPucki & Doherty (1998-2002)	\$881,600,000	1.4%	48	yes
<p>1. Firm size is total assets. Percent of firm size is total fees and expenses divided by total assets.  2. First figures given for Lawless, et al. and Ferris &amp; Lawless for Fees and expenses as a percent of firm size is for “direct costs of bankruptcy” and the second is for “professional fees.” Either figure might be considered comparable to figures for larger cases.  4. Ferris &amp; Lawless found a scale effect “only for attorneys’ fees standardized by nonsecured distributions.”  5. We combined the cases in Altman’s two groups, adjusted Altman’s Bankruptcy Costs Direct and Value of Firm (t) for inflation, and then divided the former by the latter to obtain the percentage shown in this table.  6. Average firm sizes for Altman and Weiss are adjusted for inflation using the Consumer Price Index</p>				

Putting aside the Altman and Weiss studies, the table shows that the larger the firm size studied, the lower the ratio of fees and expenses to firm size found. The Altman and Weiss anomalies are at least partly explained by the age of those studies. As we show in Part IV, controlling for the size of firms, fees and expenses have declined by 57% since the period of the Weiss study.

### 3. Professional Fee Burn Rates

Earlier studies of professional fees have generally ignored the possibility of a relationship between the length and cost of Chapter 11 cases. In doing so, the researchers have implicitly assumed that fees depend on the efforts necessary to resolve financial distress and that the time over which those efforts occur are not of great importance. Working with a sample of relatively small Canadian firms, Fisher and Martel recently concluded “[t]here is no strong evidence of an effect of time in bankruptcy on administrative costs.”<sup>54</sup>

Many bankruptcy professionals and bankruptcy scholars see it differently. They believe that costs are largely a function of time in bankruptcy. Adopting a rocketry metaphor, they use

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<sup>54</sup> Timothy C.G. Fisher & Jocelyn Martel, On Direct Bankruptcy Costs and the Firm’s Bankruptcy Decision at 6 (2001) (unpublished manuscript) (on file with Lynn M. LoPucki).

the phrase “burn rate” to refer to the rate at which monthly fees are accruing.<sup>55</sup> This terminology suggests that the direct costs of Chapter 11 are *principally* a function of the length of the case.<sup>56</sup> Ferris and Lawless did find a positive, but weak relationship between the length of the case and the amount of professional fees awarded.<sup>57</sup>

Controlling for the size of the firm, we found that the length of time cases remained pending was positively correlated with the amount of fees and expenses awarded (Table 1). We estimate that doubling the time a case remains pending results in a 57% increase in fees. In other words, if two firms are identical in every respect (assets, number of firms and location) *except* that one firm’s case is pending for 180 days and the other’s case is pending for 360 days, we would expect that the fees in the second case will be about 57% higher than the fees in the first case. This is illustrated in Figure 2. The implication of this finding on “burn rates” is similar to the scale effect above. As time pending increases, fees increase but at a declining rate.

#### 4. Number of Professional Firms

We found no prior research exploring the relationship between the number of professionals working in the case and the amounts of fees and expenses incurred.<sup>58</sup> One might suppose that the amount of effort necessary to reorganize a firm is fixed. Dividing that effort

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<sup>55</sup> Jonathan P. Friedland, *Accounts Receivable and Retainer Management: Lessons from Pillowtex*, 2002 ABI J. LEXIS 188 (“If a firm is going to draw fees from its retainer and not take in any new cash from a client in the 90 days preceding a filing, then the retainer needs to be estimated at an amount high enough to cover the total burn rate for that period.”). One reporter wrote:

“[I]n the first 13 months of the [Enron bankruptcy] professional fees have already hit \$318 million . . . That's a burn rate of \$24.5 million a month - or \$802,000 a day, 365 days a year - in a case that could easily drag on for another year, or more, and continue to consume upward of \$300 million in annual billings.”

Douglas Feiden, *Cashing In Big-Time on enron’s Collapse: Gravy Train for Lawyers & Accountants*, DAILY NEWS (NEW YORK), Feb. 2, 2003 at 8.

<sup>56</sup> *Id.* See also, Robert K Rasmussen & Randall S. Thomas, *Whither the Race? A Comment on the Effects of the Delawarization of Corporate Reorganizations*, 54 VAND. L. REV. 283, 295 (2001) (theorizing without data that “fees may be correlated roughly with the length of the bankruptcy proceeding. The longer the proceeding, the greater the fees.”)

<sup>57</sup> Ferris & Lawless, *supra* note 52, at 657 (For both attorneys’ fees and total costs, there was a positive relationship between time in reorganization and bankruptcy costs. However, the relationship was weak, only approaching conventional levels of statistical significance.”).

<sup>58</sup> Warner mentions the existence of railroad reorganization cases with “as many as 100 or 200 separate parties applying for fees.” Warner, *supra* note 6, at 339.

among a larger number of professional firms would facilitate specialization, but would not increase substantially the total amount of work required or the total fees. Larger reorganizations might require performance of a larger number of tasks, but controlling for the size of the reorganizing firm should offset that factor.<sup>59</sup>

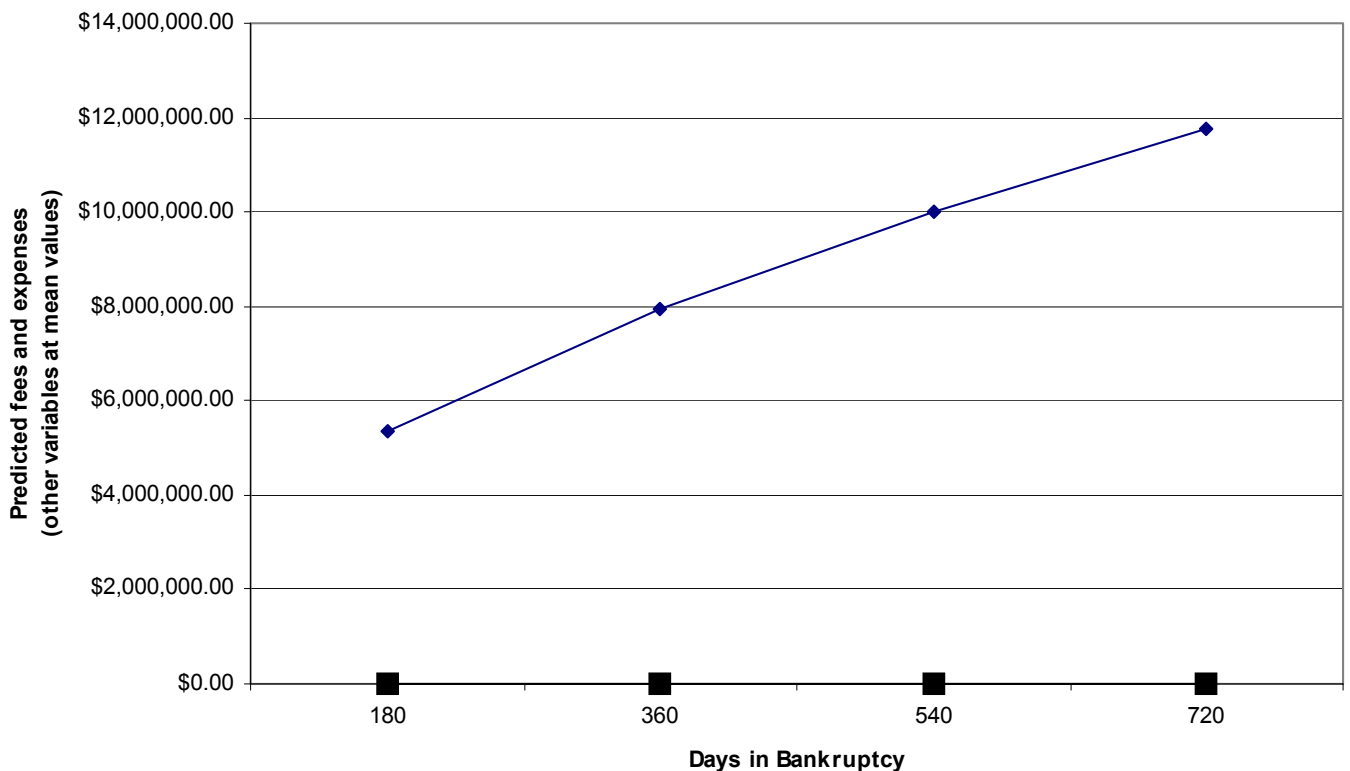
Alternatively, one might suppose that for a firm of fixed size with a given set of problems, an increase in the number of professionals might cause a substantial increase in the total amount of fees and expenses incurred. The increase would derive from two sources: (1) the necessity for communication among the professionals and (2) adversarial interaction between the professionals. The second possibility is captured in the apocryphal story of a town that didn't have enough legal work to support one lawyer, but did have enough to support two. The implication was that in a one-lawyer town matters generated little legal work because they went by default, but in a two-lawyer town those same matters could be litigated.

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<sup>59</sup> That is, one might expect economies of scale with respect to the number, as well as the size, of the separate matters requiring attention.

Controlling for firm size, duration of the case and court location, we found a significant correlation between the number of professional firms employed in the case and the amounts of professional fees and expenses incurred. The larger the number of firms, the greater the professional fees and expenses. Every new firm results in an increase in fees and expenses, on average, of 6.5% (Table 1). Since this increase is multiplicative (each 6.5% is an increase over previous increases), adding firms increases the cost of a bankruptcy exponentially. This is illustrated in Figure 3. The percentage difference in fees between each data point in the graph is the same; but the multiplying effect of adding firms leads to a line that slopes up at an increasing rate.

**Figure 2. The "Burn Rate" Over Time of Attorney Fees and Expenses**



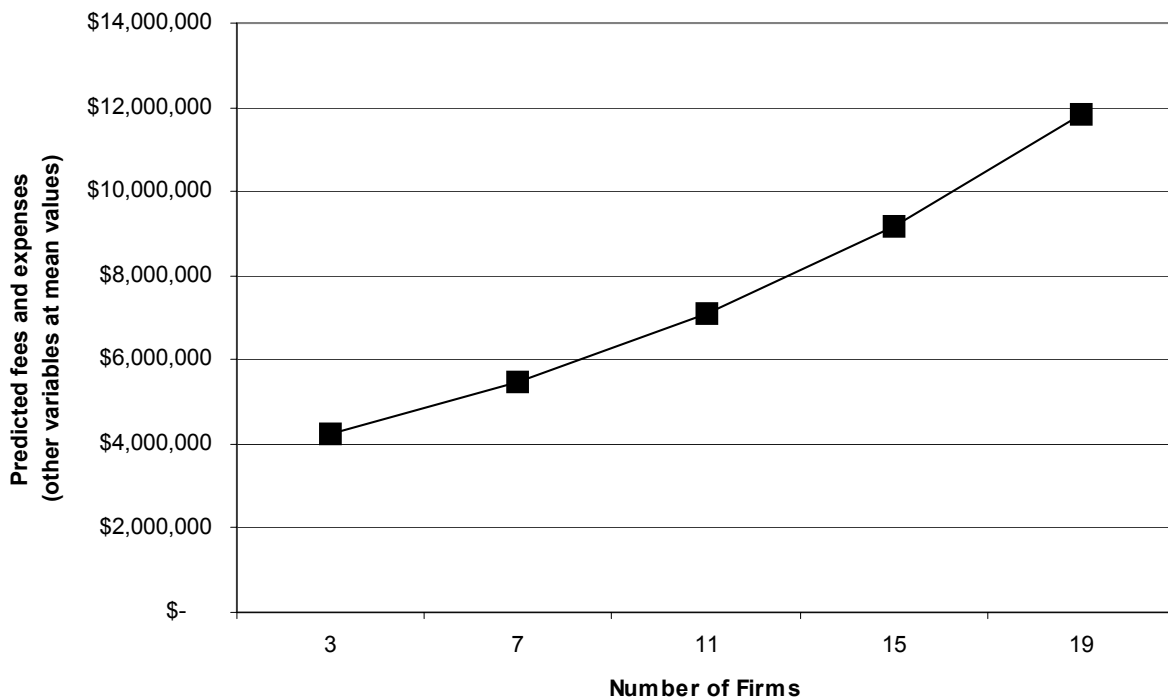
## 5. Court Competition

The filing of large, public company reorganizations in Delaware is a recent phenomenon of sudden onset. During the decade of the 1980s, the Delaware bankruptcy court attracted not a single large, public company bankruptcy from outside the state. In 1990, it attracted two. By 1996, the Delaware bankruptcy court was attracting 87% of all large, public company bankruptcies filed in the United States.

LoPucki and Whitford argued that a decade before Delaware came to dominance, the New York bankruptcy court attracted cases by awarding relatively high attorneys fees.<sup>60</sup> Many have assumed that generous fee awards were also part of Delaware’s attraction. On the other hand, Rasmussen and Thomas have defended the Delaware bankruptcy court on the supposition that because it processes cases more quickly, Delaware’s fee awards must be lower.<sup>61</sup>

Controlling for firm size, length of the proceeding, and number of professional firms in the case, we found that Delaware awarded fees that were significantly higher – 32% higher – than those awarded in other courts.

Figure 3. The cost of additional firms in bankruptcy cases



This finding in itself does not contradict Rasmussen and Thomas’ assumption that the professional fees a firm incurs to reorganize in Delaware are lower than the firm would incur to

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<sup>60</sup> Lynn M. LoPucki & William C. Whitford, *Venue Choice and Forum Shopping in the Bankruptcy Reorganization of Large, Publicly Held Companies*, 1991 WIS. L. REV. 11, 32-33, 36-37.

<sup>61</sup> Rasmussen & Thomas, *supra* note 56, at 295 (asserting without data that “fees may be correlated roughly with the length of the bankruptcy proceeding” and proceeding to a hypothetical in which Delaware fees are assumed to be lower than fees in other courts).

reorganize elsewhere. To credit courts for their arguably faster case processing, researchers seeking to compare fees across courts should not control for time in Chapter 11. To investigate Rasmussen and Thomas' assumption we compared fees and expenses in Delaware with those in other cities controlling only for firm size. We found that Delaware fees were very slightly higher than fees in other courts, but the difference was not statistically significant.<sup>62</sup> We conclude that our data provide no support for Rasmussen and Thomas' assumption that firms can be reorganized more cheaply in Delaware.

In 1996, the National Bankruptcy Review Commission recommended that Congress put an end to the forum shopping.<sup>63</sup> In the first weeks of 1997, a report commissioned by the Judicial Conference of the United States exposed controversial ex parte contact between the Delaware bankruptcy court and prospective filers.<sup>64</sup> At the end of January, 1997, Chief Judge Joseph Farnan of the Delaware district court revoked the general order referring new reorganization cases to the bankruptcy court, effectively shifting those new filings to the district court.<sup>65</sup> At that time, the move was interpreted as a disciplinary action taken against the Delaware bankruptcy court, and a rebuke to the bankruptcy court's efforts to attract cases.

Events since that time cast the district court's actions in a different light. Less than a year after the revocation, the pressure for reform had abated and the district court had quietly begun assigning cases back to the bankruptcy judges.<sup>66</sup> And in at least two instances, the district court took action against visiting judges in Delaware that suggested that the district court was an active participant in the case attraction effort.<sup>67</sup>

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<sup>62</sup> We controlled for firm size by generating unstandardized residuals, which are what remain after regressing the natural log of assets (our independent variable) on the natural log of fees and expenses (our dependent variable). We then used ANOVA to see if there were any significant differences between cases filed in Delaware and in other courts (categorized as "New York" and "Other") in the residuals. There were not (N=48, F=.024, P=.976).

<sup>63</sup> NAT'L BANKR. REVIEW COMM'N, BANKRUPTCY: THE NEXT TWENTY YEARS 770-87 (1987).

<sup>64</sup> GORDON BERMANT, ET AL., CHAPTER 11 VENUE CHOICE BY LARGE PUBLIC COMPANIES: REPORT TO THE JUDICIAL CONFERENCE COMMITTEE ON THE ADMINISTRATION OF THE BANKRUPTCY SYSTEM (1997).

<sup>65</sup> Theodore Eisenberg & Lynn M. LoPucki, *Shopping for Judges: An Empirical Analysis of Venue Choice in Large Chapter 11 Reorganizations*, 84 CORNELL L. REV. 967, 986 (1999)

<sup>66</sup> Lynn M. LoPucki, *Courts in Competition* (unpublished manuscript 2003).

<sup>67</sup> Both those cases were initially assigned to visiting judges. The visiting judge in W.R. Grace and two other large cases issued orders to show cause why the cases should not be transferred to the debtors' home district. Within a few days, a Delaware district court judge removed the visiting judge from control of all three cases, and retained the cases in Delaware.

Data from our study lend credence to this view. Delaware judges awarded significantly higher fees (32% higher on average) than judges in other courts, controlling for firm size, the duration of the case and the number of firms involved (Table 1). Using the same controls, we could find no significant differences within Delaware.<sup>68</sup> Delaware district judges awarded fees that were slightly higher than those awarded by Delaware bankruptcy judges, but the difference was not statistically significant.<sup>69</sup>

## B. Factors That Did Not Affect Fees

### 1. Equity and Solvency

In an article published in 1996, Professor Cynthia Baker charged that the system for incurring and paying fees in bankruptcy reorganization cases creates perverse incentives. In effect, fees awarded for representation of investors at all priority levels are charged to investors at the most junior priority level that is “in the money.”<sup>70</sup> Investors at all priority levels other than the one charged<sup>71</sup> are spending other people’s money for their representation, and so have no

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*Id.* A different visiting judge drew the Birch Telecom case. When the debtor became dissatisfied with the visiting judge’s reluctance to confirm the debtor’s proposed plan, a district judge removed the visiting judge from the case and confirmed it. *Id.*

<sup>68</sup> Although several visiting judges sat in Delaware during the time covered by our study, the fee orders signed by bankruptcy judges in the Delaware cases in our study were all signed by the Delaware judges, Peter J. Walsh and Mary F. Walrath. We were not aware of that attribute at the time we selected the cases.

<sup>69</sup> We arrived at this conclusion by using the same model as in Table 1, which we modified by restricting the data to cases in Delaware (n=19), and substituting a variable “DE Dist” (0 = Delaware Bankruptcy Court, 1=Delaware District Court) for the variable “DE.” The resulting coefficients for assets and days-in-bankruptcy do not differ significantly from those in Table 1 (R-squared is .85). The coefficient for the new variable indicates that district judges might be awarding slightly higher fees (5%) than the bankruptcy court judges, but the coefficient is not significant (t = .186, p = .856). The absence of a significant effect may be attributable to the sample size.

<sup>70</sup> Cynthia A. Baker, *Other People’s Money: The Problem of Professional Fees in Bankruptcy*, 38 ARIZ. L. REV. 35 (1996) ([T]he absolute priority rule gives the bill to the last class of creditors or shareholders still ‘in the money.’”).

<sup>71</sup> On average, unsecured and stock investors occupy 4.3 priority levels in the bankruptcy reorganizations of large, public companies. Lynn M. LoPucki, *The Myth of the Residual Owner: An Empirical Study* (2003) (unpublished manuscript) (on file with Lynn M. LoPucki).

incentive to hold down expenditures.<sup>72</sup> To remedy the problem, Baker proposed that the professional fees incurred on behalf of each class be charged against the distribution to that class and that the professional fees incurred by the debtor-in-possession be charged prorata against the distributions to all classes.<sup>73</sup> Market actors would then control fees, making court review unnecessary.<sup>74</sup>

We hypothesized that if the spending of other people's money had a significant effect on fees, it would result in lower fees in the cases of insolvent debtors. This hypothesis rests somewhat precariously on two assumptions: (1) boards of directors of firms remain loyal to shareholders even when the firm is insolvent and in bankruptcy<sup>75</sup> (2) boards of directors have the ability to control fees. On these assumptions, fees should be lower for a solvent firm of a given size than an insolvent one because the board of the solvent firm would be spending its principal's money while the board of the insolvent firm would be spending other peoples' money.

To test this hypothesis, we constructed two variables: equity and solvency. Equity is the ratio of assets to liabilities of the firm, as those two amounts were stated on the bankruptcy petition. Solvency is a dummy variable that indicates whether the assets exceeded the liabilities.

Adding equity to our model as a fifth variable improved the model somewhat, and indicated that equity is negatively related to fees; but the coefficient was not significant.<sup>76</sup> Adding solvency to the model as a fifth variable did not improve the model at all. We conclude that the directors of firms with stronger ratios of assets to liabilities may be better at controlling fees and expenses, but our data are not sufficient to serve as the sole basis for that conclusion.

## 2. Fee Cuts

The "fee cut" for a case is the excess of the total amounts of fees and expenses applied for over the total amounts of fees and expenses awarded, expressed as a percentage of the fees

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<sup>72</sup> *Id.* at 46-47 (illustrating the problem of other people's money in the bankruptcy reorganization context).

<sup>73</sup> *Id.* at 38.

<sup>74</sup> *Id.* at 79-80.

<sup>75</sup> We use the term "insolvent" here to mean that the liabilities of the reorganizing firm exceed its assets by whatever measure is relevant

<sup>76</sup>  $p = .099$ . Another aspect of this finding was puzzling. Substituting equity for Delaware as the fourth variable in our model did not diminish the fit. This suggests that equity is a substitute for Delaware in determining fees. We have difficulty, however, in explaining why that should be so.

and expenses applied for.<sup>77</sup> One might suppose that the resulting fees would be smaller in cases in which fee cuts had been larger.

That proved, however, not to be the case. We found that adding fee cuts to the model as an independent variable did not improve the fit. Controlling for firm size, length of case, number of professional firms and location in Delaware, fees awarded in low fee-cut cases were higher than fees awarded in high fee-cut cases, but only very slightly so and the difference was not significant. Our data provide no support for the idea that high fee cuts are associated with low fees.

One possible reason the differences in fee cuts did not result in significantly lower fees is that the fee cuts were relatively small. In 43 of the 48 cases (89%), the fee cut was under 4% of the amounts sought. Thus in the large majority of cases, the courts awarded professionals nearly the entire amounts for which they applied. In the five remaining cases, the court cut fees by 9% to 15%. These cuts were simply not large enough to make much difference – either directly by

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<sup>77</sup> Fee orders were missing with respect to a few small applications. We did not pursue them because the amounts were too small to affect any of our findings.

Our resolution of issues with respect to six fee awards may have made a difference large enough to affect our findings with respect to fees cuts but not with respect to fees awarded. In each of the six instances we treated the fees sought as if the court had awarded them in the full amounts sought. The fees sought on two of the five applications were in fact paid in full, but the court did not award them because it apparently did not consider them “professional fees” within the meaning of the statute. In the Montgomery Ward case (Delaware) Arthur Andersen was paid the fees it sought as an auditor and the attorneys for class action plaintiffs were paid the fees they sought as part of a settlement. Fees sought by two other professional firms were contested and the courts had not yet made final decisions at the time we concluded our study. PriceWaterhouse Coopers’ application for \$2,471,949 in the Boston Chicken case in Phoenix was challenged in its entirety for conflict of interest. The fee had been in litigation for almost three years without resolution by the time we concluded our study. Jones, Day’s application for \$32,120,879 in the Loewen International case in Delaware was the subject of a fee audit that might eventually lead to cuts. The fifth problem was with respect to Lazard, Freres’ application for \$1,400,000 million in the Prime Succession case in Delaware. The court ruled on this application, but the order was not posted on PACER and is missing from the court file. Finally, the Delaware court has not yet ruled on \$744,000 of Blank Rome Comisky & McCauley’s application for total fees of \$2,856,204 in the TWA case.

In a few cases, the courts ordered fees in excess of the amount sought by application. In some cases, the excess was apparently for fees earned after the final fee application. We ignored those increases in our calculations. In other cases, the courts appeared to have ordered fees in excess of the final application amounts for the periods covered by the applications. These increases were small and the fee orders did not explain them. We included these increases in our calculations.

reducing the amounts of fees or indirectly by discouraging applications in higher amounts.

<b>Table 3. Percent of fees applied for but not awarded, by court</b>			
<b>Court</b>	<b>Mean</b>	<b>Median</b>	<b>N</b>
Delaware	0.74*	0.07	19
New York	4.50*	2.18	9
Other Courts	2.29*	0.75	20
Total	2.09	0.67	48
* ANOVA F=4.307, p = .019			

The New York bankruptcy court made larger fee cuts and the Delaware bankruptcy court made smaller fee cuts than Other Courts. The differences were statistically significant (Table 3). In Delaware the expected relationship obtains--lower fee cuts are associated with higher fees. But the same is not true in New York; higher fee cuts did not result in lower fees. The difference between Delaware and New York is somewhat surprising in light of the fact that many of the same law firms were making the fee applications in both districts. A possible explanation might be that firms apply for more in New York with the expectation the New York court will cut the fees.

#### IV. The DIP Attorney Fees Regression Model

We also modeled the determinants of bankruptcy attorney fees<sup>78</sup> for representation of the debtor-in-possession (DIP). In doing so, we used a regression equation that is similar to the one we tested in Table 1. The results are substantively similar to those for all professional fees and expenses. DIP bankruptcy attorney fees are highly correlated with the size of the company and the length of time it takes to complete the bankruptcy proceeding (Table 4). A one-percent difference in assets results in approximately 0.49% difference in fees, holding days in bankruptcy constant.

There is nearly a one-to-one ratio between days in bankruptcy and DIP bankruptcy attorney fees. A one-percent increase (or decrease) in the days to resolution represents a 0.95% increase (or decrease) in fees. The “burn rate” metaphor is especially appropriate to describe the relationship between time in bankruptcy and DIP bankruptcy attorney fees.

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<sup>78</sup> We defined “bankruptcy attorney” as excluding firms designated as “special” counsel or doing only work that did not involve bankruptcy issues. If an attorney did both bankruptcy and non-bankruptcy work, we considered the attorney to be a “bankruptcy attorney” and included the entire fee. Only one or two firms in each case qualified as bankruptcy attorneys for the debtor-in-possession. The sole exception was Montgomery Ward, where three qualified.

Adding the number of professional firms working in the case did not improve the model. That is, the DIP's bankruptcy attorneys fees were not significantly higher when more professional firms were in the case. This finding suggests that neither communication nor adversarial interaction among all firms in the case caused the debtor-in-possession to spend significantly more on its own bankruptcy attorneys.

<b>Table 4.</b> <b>Determinants of debtor-in-possession attorneys fees</b> <b>for representation in Chapter 11 bankruptcy cases, 1998 - 2002.</b> Dependent variable = natural log of debtor-in-possession professional fees (OLS coefficients, standard errors in italics)		
	<b>I</b>	<b>II</b>
<b>Assets</b> <i>natural log, mean= 6.17, sd=1.06</i>	0.488** <i>0.089</i>	0.501** <i>0.096</i>
<b>Days in bankruptcy</b> <i>natural log, mean=5.67, sd=.84</i>	0.951** <i>0.112</i>	0.891** <i>0.129</i>
<b>Number of firms</b> <i>mean=10.85, sd=5.17</i>		0.014 <i>0.021</i>
<b>Delaware</b> <i>mean=.40</i>		-.185 <i>.195</i>
<b>Constant</b>	6.022** <i>.717</i>	6.205** <i>0.758</i>
<b>Adjusted R-square</b>	.75	.74
** p < .001		

Adding whether the case was in Delaware did not improve the model. This suggests that the higher costs of reorganizing in Delaware do not include higher fees paid to the DIP's bankruptcy lawyers. The added cost from Delaware's requirement that DIPs represented by non-Delaware counsel also retain local counsel appears to be *de minimus*.<sup>79</sup>

#### IV. Is the Cost of Chapter 11 Declining?

Our study covered 48 firms emerging from bankruptcy from 1998 through the first half of 2002 – a four and one-half year period. Controlling for the size of the case, the length of time in reorganization, the number of professionals employed and location of the case in Delaware, we

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<sup>79</sup> Eisenberg & LoPucki, *supra* note 65, at 996 (describing the local counsel requirement and reporting data showing that “[t]he decision to file in Delaware rather than New York is, for all practical purposes, the decision to incur the expense of another law firm’s fee.”).

found no significant change in fees over that brief period.<sup>80</sup>

Weiss studied 37 firms emerging from bankruptcy from 1980 through 1988.<sup>81</sup> For 31 of those firms, he published the total amount of professional fees and expenses incurred, the firm's total assets reported prior to bankruptcy, and the number of days the firm remained in bankruptcy.<sup>82</sup>

To determine whether the amounts of professional fees and expenses had changed from the period of Weiss' study to ours, we adjusted Weiss' dollar amounts for inflation,<sup>83</sup> assigned a dummy variable to distinguish our data from Weiss', combined the two sets of data, and ran a regression.<sup>84</sup> We found that controlling for debtor size, the professional fees and expenses incurred in the cases we studied were about 57% lower than those in the cases Weiss studied (Table 5, column I). From this model we conclude that large public companies can reorganize more cheaply today than they could in the early 1980s.

When case duration is added to the model (Table 5, column II), the Recent Case variable is no longer significant. That is, controlling for the length of time cases remain pending, the data no longer support the inference that Chapter 11 fees and expenses have declined since the 1980s. We interpret the change in results as indicating that the decline in the cost of reorganization shown by the model in Column I results from an accompanying change in the length of time cases remained pending. That is, reorganizations were cheaper by the time of our study because they were shorter.<sup>85</sup> This interpretation rests on two bases. First, fees and expenses are positively correlated with case duration; the longer the case, the greater the fees and expenses.

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<sup>80</sup> We tested for the effect of increasing fees by inserting into the equation indicator or "dummy" variables for the years 1999 through 2002, based on year of confirmation. This did not improve the fit of the model, and none of the variables was significant.

<sup>81</sup> Weiss, *supra* note 36.

<sup>82</sup> In four cases, we corrected Weiss's data with respect to "total assets before bankruptcy." The changes were in Anglo Energy (from \$230 million to \$337 million), Manville Corporation (from \$298 million to \$2,298 million), Towle Manufacturing (from \$240 million to \$134 million), and Wickes Companies (from \$551 million to \$1,939 million).

<sup>83</sup> Amounts for the adjustments were based on the change in the Consumer Price Index.

<sup>84</sup> In this analysis, we used the book value of assets as reported on the last form 10-K filed before bankruptcy as the measure of firm size because that is the measure Weiss used. The difference between this measure and assets reported on the petition is substantial. *Supra*, text accompanying notes 44 and 45.

<sup>85</sup> Weiss' data do not include the number of firms in the bankruptcy, so we dropped that variable from our analysis.

Second, case duration decline by about 50% from the era Weiss studied to the era we studied.<sup>86</sup>

<b>Table 5.</b> <b>Changes in the cost of Chapter 11 bankruptcy</b> <b>Comparing Weiss' cases (1981-1988) with recent cases (1998-2002)</b> Dependent variable = natural log of total fees and expenses (Weiss data adjusted for inflation) (OLS coefficients, standard errors in italics)		
	<b>I</b>	<b>II</b>
<b>Assets</b> <i>natural log, mean= 5.89, sd=1.25</i>	0.749** <i>0.072</i>	0.666** <i>0.063</i>
<b>Recent Cases (1998-2002)</b> <i>mean = .61</i>	-0.571* <i>0.173</i>	-.096 <i>0.200</i>
<b>Days in bankruptcy</b> <i>natural log, mean=6.08, sd=.90</i>		0.560** <i>0.101</i>
<b>Constant</b>	10.921** <i>0.481</i>	8.286** <i>0.624</i>
<b>Adjusted R-square</b>	.58	.70
** p < .001 *p < .01		

## V. Conclusions

Earlier researchers reported professional fees as percentages of firm or case size. Their results were difficult to reconcile because they studied different types of cases in different time periods, generally controlled only for case size, and measured size in different ways. In this article, we presented the first multi-variate analysis of the factors that determine the amounts of professional fees in bankruptcy. We found that four factors contributed significantly: (1) the value of the firm's assets (2) the length of case, (3) the number of professional firms authorized to work, and (4) whether the case is in Delaware. The use of these factors together accounts for 77% of the variance in fees among cases of large, public companies.

We used our model to test the efficacy of several measures of case size. None of the measures we tested yielded a significantly better fit than assets reported by the debtor firm on the bankruptcy petition. Future researchers should continue to explore and test other measures of firm size. But to achieve comparability to other studies – including other future studies – they should discover the assets reported by the debtor on the bankruptcy petition and use it as at least an alternative measure of case size.

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<sup>86</sup> Eisenberg & LoPucki, *supra* note 65, at 980 (graph showing that the mean time termination for large Chapter 11 cases declined by about half from the late 1980s to 1997).

Professional fees and expenses are almost certainly subject to a scale effect. For that reason, it is important to consider the sizes of cases when reporting or interpreting studies of professional fees. For a group of 48 firms with assets ranging from about \$65 million to \$7.5 billion, and averaging \$881 million, we found that total fees and expenses were 1.4% of total assets reported in the court file at the beginning of the bankruptcy case,<sup>87</sup> and that firms expended, on average 2.2% of assets on professional fees (1.9% after the removal of a single outlier). These percentages are consistent with those found by Lubben.

Theorists have suggested that the direct costs of reorganizing in Delaware are lower because Delaware processes cases more quickly than other courts. Controlling only for debtor size, we found that the professional fees and expenses for reorganizing in Delaware were higher than those in other courts, but not significantly so. Controlling for debtor size and case duration, we found that the professional fees and expenses for reorganizing in Delaware were 32% higher than in other courts and the difference was statistically significant. The implications are difficult to assess, because we do not know whether the lawyers are doing less work in Delaware cases or the same work in a shorter time. It is possible that the Delaware court approves larger pay for the same effort, but our data do not address the issue.

Perhaps the most interesting of our findings is that reorganizing a firm of a given size through Chapter 11 costs significantly less in real dollars today than in the 1980s. The ultimate cause of this reduction in cost is not apparent from the data.<sup>88</sup> We speculate that the reduction results largely from the routinization of the reorganization process and its compression in time. Debtors today come to bankruptcy knowing what they want and get it quickly. The provisions of the Bankruptcy Code applicable to the cases of large, public companies have remained essentially the same since 1979. Lawyers and judges have more experience with the rules and more experience in working with each other. The documents filed in bankruptcy cases today consist principally of boiler plate developed by lawyers and courts in earlier cases. Both the lawyers and the courts have streamlined their operations through computerization. If we are correct, these reductions can be expected to continue so long as the reorganization process remain essentially the same.

Taken together, this and earlier studies show that large public companies incur

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<sup>87</sup> Expressed as a percentage of the debtor's assets as reported on the last annual report filed with the Securities and Exchange Commission before bankruptcy, we found that fees and expenses are 1.0% of assets.

<sup>88</sup> Lawyers hourly rates seem to have increased at a rate at least equal to inflation since the early 1980s. *See, e.g.,* Anthony Baldo, et al., *Rich Man, Poor Man*, THE DEAL, Sept. 26, 2001 (reporting an empirical study showing increases in big-case, bankruptcy lawyers' hours rates from 1990 to 2001 substantially in excess of the 36% rise in the Consumer Price Index during that period). As our model reflects, shorter cases result in lower fees. Cases on average take only about half as long as they did in the 1980s. But this intriguing correlation does not explain how shortening a case reduces so substantially the amount of work required.

professional fees and expenses ranging from about one percent to three percent of the value of the companies' assets at bankruptcy. Earlier studies found that 20-30 percent of public company reorganizations failed<sup>89</sup> and that in those cases the companies suffered additional losses averaging at least 18 percent of the value of the companies' assets prior to bankruptcy.<sup>90</sup> Although fees awarded in the bankruptcy courts may indeed be higher than those negotiated in the market, from a systems standpoint considerably more opportunity exists for gains from improvements in the quality and effectiveness of bankruptcy professionals services than from reductions in the amounts of the professionals' fees and expenses.

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<sup>89</sup> Lynn M. LoPucki & Joseph W. Doherty, *Why Are Delaware and New York Reorganizations Failing?*, 55 VAND. L. REV. 1933 (2002); Lynn M. LoPucki & Sara D. Kalin, *The Failure of public Company Bankruptcies in Delaware and New York: Empirical Evidence of a "Race to the Bottom,"* 54 VAND. L. REV. 231 (2001).

<sup>90</sup> Lynn M. LoPucki, *Can the Market Evaluate Legal Regimes?*, 54 VAND. L. REV. 331, 338 (2001).